

Project: Indiana State Trauma Care Committee (ISTCC) Date: August 8, 2014 – 10:00 am

Attendance: Committee members present: William VanNess, MD (Chair); Mike Garvey, proxy for John Hill; Lewis Jacobson, MD; Lawrence

Reed, MD; Meredith Addison, RN; Lisa Hollister, RN; David Welsh, MD; Chris Hartman, MD; Matthew Vassy, MD; Gerardo Gomez, MD; Spencer Grover; MD; Tim Smith; Stephen Lanzarotti, MD; Tony Murray; Scott Thomas, MD; Michael McGee, MD;

Members present via phone:

Committee members not present: John Hill (Vice Chair); Thomas Rouse, MD; Donald Reed, MD; and Ryan Williams, RN;

ISDH Staff Present: Art Logsdon; Katie Gatz; Jessica Skiba; Murray Lawry; Camry Hess

Agenda Item	Discussion	Action Needed	Action on Follow-up Items
<ol> <li>Welcome and Introductions –</li> </ol>	A quorum was present for this meeting.	N/A	N/A
William VanNess, MD,	Dr. VanNess opened the meeting at 10:00 am and asked all		
State Health Commissioner	attendees (in room and on phone) to introduce themselves.		
2. Approval of Minutes from the May 9, 2014 ISTCC meeting	Dr. VanNess asked for corrections to the minutes of the May 9, 2014 Indiana State Trauma Care Committee meeting. Dr. Jacobson made a motion that the minutes be accepted as distributed, it was seconded by Dr. Thomas and passed unanimously.	Minutes Approved as distributed.	N/A
3. Trauma Registry/EMS Registry Reports, Jessica Skiba and Camry Hess	Trauma Registry Report For Quarter 1, 2014, twenty-nine (29) hospitals have either started reporting again or are reporting for the first time and one hospital has discontinued reporting. Districts 7 and 10 have 100% reporting representation.	N/A	N/A



So far this year 52 hospitals have been trained by Katie Gatz and her staff on the Indiana trauma registry. ISDH staff hosted training events around the state during the months of February & March for hospitals and EMS providers. Katie has hosted four training events at ISDH and will continue to host trainings at ISDH every other month. Please note that these trainings are geared toward those who are currently not reporting their trauma cases to the trauma registry. Once you have been trained, the expectation is that you will report trauma data.

For Quarter 1, 2014, 9 trauma centers and 79 non-trauma centers are reporting. Trauma centers make up 47% of the data.

Camry presented data that was plotted for the ED Length of Stay (LOS) data for the Bar & Whisker graph. While most of the patients are under 5 hours, there is a large range for ED LOS. All values fall within the two caps. Each hospital has a new anonymous ID. These ID's are different from Quarter 4 2013 and are being sent out with the hospital-specific reports. If you don't have yours yet you will receive it soon.

The ED LOS for these graphs was modeled using time-to-event analysis. The purposes of using this analysis were to account for deaths and to see how variables influence ED LOS – the independent variables used in this model were total GCS and patient's age. These two variables were used because they were the most similar to variables used in the published, peer-reviewed literature on ED LOS. In this chart, note the trauma center average is above the mean and the non-trauma center is below the mean.

Camry reported that data was looked at from the trauma centers and non-trauma centers. Some hospitals did not have enough incidents with either a total GCS or age and so they could not be



modeled for this report. Each non-trauma center has been assigned a unique number for confidentiality. The hospitals are in order from low mean to high mean.

During the last meeting a request was made for last quarter to calculate the ED LOS for just transferred patients. This set of graphs is in the same order as the previous set. The reference group is represented by the red box on the far left. Each hospital has an anonymous number.

It was commented that it is important to know the level of trauma center, especially for ED LOS for Trauma Center level III. However, there may be issues of patient privacy due to small hospital numbers. This issue may be alleviated by combining Level III and "in the process" facilities.

Jessica discussed the ED LOS by ISS (Injury Severity Score). These patterns are similar to prior quarters. She then moved on to discuss the ED Disposition by ISS. She explained the data for Indiana was broken into two different graphs with different axes. For ED Disposition by ISS < 15, the majority of patients were admitted to the Floor Bed. For ED Disposition by ISS > 15, a majority of these patients were admitted to ICU or the OR. Both of these graphs show similar trends to last quarter.

There was a decrease in the Indiana average in the Ps >= 50% category by 5%. The Unable to calculate Ps went up by 6%, 3%, and 5% for Indiana, trauma centers, and non-trauma centers, respectively.

There were 3 cases identified this quarter where patients had a probability of survival greater than 50% and they expired in the emergency department. This quarter there were 2 males and 1



female with an average age of 65.3 years. Last quarter the average age was 33.5. The cases were at 2 non-trauma centers and 1 trauma center-compared to last quarter where 3 of the cases came from non-trauma centers and 1 from a trauma center. The facilities have been notified of these cases. Camry asked what else the Committee would like to add to this summary page. What other variables should we look at (ISS, PS, what is useful)?

The length of ED admission and distance to trauma center were suggested to be added to this review.

It was commented that internal review and patient improvement is necessary and some facilities are implementing post-mortem CTs to understand what transpired that lead to Ps >= 50% and expired. Other sources of data, such as coroner or medical examiner reports could help. It was noted that PS can be objective and non-trauma centers cannot do a lot of tests, so the ISS will be low.

Moving on to Hospital LOS by Non-trauma centers, we had many new non-trauma centers begin reporting data during Quarter 1. This is reflected in changes from the last quarter.

## Linked Cases:

Camry probabilistically matched 501 cases, which is 14.7% of the data. 46% of the initial incidents and 37% of the final incidents were linked. For the majority of linked transfer cases, 122 incidents, patients were taken from a hospital to a trauma center.

For all transfer patients, the total average time from  $1^{st}$  EMS Notified to Final ED arrival: 4 hours, 51 minutes. For critical patients, the total average time from  $1^{st}$  EMS Notified to Final ED arrival: 4 hours, 44 minutes. For physiological critical patients, the total average time from  $1^{st}$  EMS Notified to Final ED arrival: 4 hours, 47 minutes.



A majority of the transfers were into District five. Districts 7 and 6 had the greatest transfers into District 5. Districts 10, 5, and 3 had a lot of transfers within the PHPD. Critical and Physiological Critical patients travel further on average between the scene of the injury and the initial hospital, and then again from the initial hospital to the final hospital, but the overall time is less.

Of the 501 linked transfers, 12% of the patients were under the age of 18, a decrease from the previous quarter. For ED disposition at the final hospital, we saw an increase in "Floor Bed", "OR", and "Expired" categories, but a decrease in "ICU", "Home w/o Services", and "NK/NR/NA" categories. This chart led to some discussion about over or under triage of patients.

In response to requests from last quarter, we reviewed the transfer delay data. The transfer delay indicated data was filled in more for Q1 2014 than the previous quarter. We observed more "No" transfer delays indicated. We had 6 EMS Issues reported and 2 weather or natural factors as reasons for transfer delays.

Camry probabilistically linked 756 cases for Q1 2014 between the EMS Registry and Trauma Registry. She asked now that we have successfully linked EMS and Trauma data, what additional type of data does the Committee want to see?

## EMS Registry Report

For the EMS registry report, there were 36,890 traumatic injury incidents reported from January 1, 2013 to July 1, 2014, which were ascertained through Possible Injury indicated; or Provider Primary Impression, or Provider Secondary Impression, or Complaint Reported by Dispatch as trauma injury. We have seen a significant increase in the number of EMS providers submitting data to the ISDH EMS Registry.



	For the traumatic injuries report, we have had a steady increase in providers reporting. At the November ISTCC meeting, we reported that we had 29 providers, in February we had 74, in April 91, and in July 2014 we had 91 providers. We are now reporting 118 providers. Not all EMS providers handle traumatic injury cases. At the November, 2013 ISTCC meeting, we reported that we had 215,000 runs. In February, 2014 we had 264,000, in April, 2014 364,000 and in July we had 426,923 runs.  The report provides charts with patient age groups, gender, race, and payer type; analysis on distance and time; total mileage broken down, total run time broken down, primary role of the unit, and level of transport. Additional analysis on cause of injury, incident location type, response mode to scene, and transport mode from scene, destination determination and type, and response request and disposition are included.		
4. In The Process of ACS Verification" – Applications (4) - Art Logsdon, Katie Gatz and Dr. Gomez	Art gave an overview of "In The Process of ACS verification" process noting there are four (4) hospitals seeking approval at this meeting. The "in the process" application is submitted to the ISTCC Designation Subcommittee. The ISTCC Designation Subcommittee recommends action by the ISTCC. Upon approval by the ISTCC, they recommend the application to the State Health Commissioner who, in turn, will refer it to the EMS Commission for approval.  Dr. Gomez noted the Committee met regarding the applications from the following hospitals:  (1) Community Hospital North, Indianapolis (2) Community Hospital South, Indianapolis (3) Methodist Northlake Hospital (Gary) (4) Community Hospital East, Indianapolis	Recommendation letters will be prepared for the next EMS Commission meeting.	N/A



	Community Hospital North – Indianapolis The Designation Subcommittee recommended the application complied with requirements, pending submittal of additional information.  Community Hospital South, Indianapolis The Designation Subcommittee recommended the application complied with requirements.  Methodist Northlake Hospital (Gary) The Designation Subcommittee recommended the application complied with requirements.  Community Hospital East, Indianapolis The Designation Subcommittee recommended the application complied with requirements.  The Designation Subcommittee's recommended in is to approve all 4 applications for "In the Process of ACS Verification". Dr. Lanzarotti made a motion that the ISTCC recommend to the State Health		
	Commissioner that he recommend to the IDHS/EMS Commission approval of the "in the process" applications for the 4 hospitals listed above. The motion was seconded by Dr. Vassy and approved unanimously.		
5. Trauma System Plan Subcommittee Discussions – Art Logsdon and Matthew Vassy	Art provided an overview of the Statewide Trauma System Plan. He provided a document with items for discussion to further develop the Plan.  Dr. Vassy suggested that the Committee retain some advocacy help to focus on funding.	N/A	N/A



	Dr. Welsh distributed a resolution titled Support of Creating a National Trauma System that will be presented to the ISMA delegates at the annual meeting in September to then be presented to state legislators. He will see if funding can be added to this resolution.		
6. Updates – Katie Gatz and Jessica Skiba	Katie Gatz will be providing Trauma Registry Reporting training on November 7 at the ISDH building.  Jessica provided updates from the Indiana Injury Prevention Advisory Council (IPAC). IPAC is currently drafting a strategic plan for injury prevention and will host an injury prevention conference in spring, 2015.	N/A	N/A
7. Other Business and next meeting date	Remaining meeting dates: November 14  All meetings are at the ISDH, 2 North Meridian Street in Rice Auditorium in the Lower Level from 10:00 am to 12:00 pm (Indianapolis time)	N/A	N/A